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Treatment of simultaneous occurrence of uterine torsion and incomplete cervical dilatation in surti buffalo

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Abstract

Rotation of gravid uterus along its own axis defined as uterine torsion which is very common in the buffalo during the last trimester of pregnancy. Here, a case of 5 year old buffalo which was in 2nd parity affected by uterine torsion and incomplete cervical dilatation simultaneously discussed. Primarily torsion was relieved by Modified Schaeffer's Method and then treatment for incomplete cervical dilatation followed. Response to treatment took 24 hours. At the end cervix was dilated sufficient so that dead fetus removed by traction. Animal recovered successfully within a short period of time.

Keywords: torsion, gravid uterus, cervical dilatation, modified schaeffer's method

1. Introduction

Uterine torsion is the rotation of gravid uterine horn around its longitudinal axis (Alfaris *et al.*, 2014) [1], which leads to stenosis of the birth canal leading to dystocia and is the most common cause of dystocia in buffaloes. Torsion may be right or left according to direction, mild, moderate or severe according to degree and pre-cervical, cervical or post-cervical according to position (Amer and Hashem, 2008) [2]. Uterine torsion, first reported in 1766 by Boutrolle (Fleming, 1930) [5]. It is commonly observed in pleuriparous animals at the time of parturition or during the last month of gestation (Roberts, 1986) [16]. The condition accounts for about 29.5 to 30.6% of dystocia cases in this species (Amer *et al.*, 2008) [2], of which 67–83% of dystocia are presented at referral hospitals (Vasishta, 1983, Malhotra, 1990, Singh, 1991, Prabhakar *et al.* 1994, Srinivaset *al.*, 2007) [21, 11, 19, 15, 30] among which 83-85% cases have the history of completed term.(Prabhakar *et al.*, 1994, Srinivas *et al.*, 2007) [15, 20]. The present report give details about the case of post-cervical right sided uterine torsion followed by incomplete cervical dilatation in buffalo.

2. History and observation

A five year old Surti buffalo in 2nd parity was presented at the Veterinary Teaching Complex, CVASc, GBPUA & T, Pantnagar with the history of inappetance since last five days. Animal was showing signs of discomfort like kicking her belly, frequent sitting and standing, bellowing, but there was no history of straining. Animal had completed 10 months of pregnancy and no vaginal discharge was observed. The animal was dull and depressed. She was dehydrated (4- 6%), rectal temperature was recorded as 101.8°F, respiration rate was 24/min., pulse rate was 72/min., heart rate was 68/min and the conjunctival mucous membrane was congested. After examination, the condition was diagnosed to be a case of uterine torsion. Further, post cervical right sided uterine torsion of more than 270° angle was confirmed per-vaginally. Per-rectal examination revealed that the fremitus was weak with no movement of fetus and so, it was reported that the fetus was not alive. The left vulval lip was found to be tilted towards the right side externally.

3. Treatment

Primarily the animal was treated for dehydration i.e. fluid therapy with antibiotic (Inj. Intamox-D 3.5 g I/M and Inj. Metris 500ml I/V) and anti-inflammatory (Inj. Anistamin 8ml I/M) to treat the toxicity and infection, caused by the dead fetus. Then animal was casted right side and fixation of fetus was done by plank followed by rolling according to Modified Schaeffer's Method. After first rolling, the degree of torsion was found to be about 180° and,

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After second rolling the torsion was relieved as the cervix was found to be open only about three fingers. The muzzle portion of fetal head was palpable. The incomplete cervical dilatation was treated by Inj. Dexamethasone, Valethamate bromide, Cloprostenol once and liquid Uterotone @ 100ml per orally in every 2 hours interval. The animal was examined repeatedly at every 8 hour intervals. The injection Valethamate bromide was repeated after 18 hours because at this time the cervix was dilated, but only one hand could pass. After 24 hours, the dead fetus was removed by traction as the birth canal was completely dilated. The animal was treated by antibiotic, anti-inflammatory with ecbolic to prevent the secondary infection and retention of placenta post-operatively.

4. Result and discussion

Dystocia is less common in the buffalo than cattle, and among buffaloes, the stabled riverine type is more prone than the free-ranging swamp type. Usually, uterine torsion occurs before the onset or during the late first stage of parturition as the cervix is partially or completely dilated prior to or immediately after the correction of torsion (Wright, 1958, Pearson, 1971) ^[22, 14]. Incidence of greater than 270° uterine torsion is less than 180° to 270° which was noticed in this case. The direction of uterine torsion is right sided in more than 90% of the cases (Roberts, 1986) which was also found in this report. The clinical signs which was noticed in this case is accordance with Ghuman (2013). In Schaffer's method, theory is to rotate the dam to the same degree and direction to which the uterus has rotated, keeping the fetus fixed by fixing uterus with a plank as it is followed in this case. In 18-50% animal it was noticed that cervical dilatation subsequent to successful detorsion failed which warrants cesarean section (Manning, *et al.* 1982, Malhotra, 1990, Frazer, *et al.* 1996, Aubry *et al.* 2008) ^[12, 11, 6, 3]. Duration of torsion play a significant role in cervical dilatation as the animal subjected to detorsion process in <36 h, 36–72 h and >72 h of occurrence of torsion, the possibility that cervix will dilate and there will be vaginal delivery is 83, 52 and 9%, respectively (Honparkhe *et al.*, 2009) ^[8]. 1-2 rolls were sufficient to detort in 60% buffaloes (Jeengar *et al.*, 2015) ^[9-10] as it was seen in this case. After detorsion, most cases were accompanied with closed or insufficient dilated (48%) than dilated or open cervix (32%) which were altered after drug therapy into the opened (64%) and indilated cervix (16%) (Jeengar *et al.*, 2015) ^[9-10] as found in this case. The response of treatment took 24 hour and 15 minute. The animal recovered completely within a short period of time.

5. Conclusion

The simultaneous occurrence of uterine torsion and incomplete cervical dilatation is very rare in buffaloes. This case was successfully treated in a Surti buffalo here.

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